

Amendments to the Specification

Please replace the paragraph beginning on page 1, line 10, with the following rewritten paragraph:

Conventionally, as transmission lines for transmitting a high frequency signal in a microwave band, a millimeter wave band, and the like, a strip line, a microstrip line, a coaxial line, a waveguide, a dielectric waveguide, and the like are known. Each of them is also known as a component of a resonator and a filter for high frequency signal. An example of a module formed by using any of the components for high frequency is an MMIC (Monolithic Microwave IC). Hereinbelow, a transmission line for high frequency, and a microstrip line, a waveguide, or the like each serving as a component of a filter or the like will be generically called waveguides.

Please replace the paragraph beginning on page 1, line 19, with the following rewritten paragraph:

Propagation modes of electromagnetic waves in a waveguide will now be described. FIGS. 19A and 19B show an electric field distribution and a magnetic field distribution, respectively, in a state called a TE mode (TE₁₀ mode) in a rectangular waveguide. The positions of sections S1 to S5S1, S2, S3, S4 and S5 in FIG. 19A and those in FIG. 19B correspond to each other. FIG. 20 shows an electromagnetic distribution in the section S1. As shown in the diagramsFIG. 19A, FIG. 19B and FIG. 20, a state in which electric field components exist only in the section direction, and electric field components do not exist in an electromagnetic wave travel direction (waveguide axial direction) Z is called the "TE mode".

Please replace the paragraph beginning on page 2, line 6, with the following rewritten paragraph:

FIGS. 21A and 21B show electromagnetic field distributions in a state called a TM mode (TM₁₁ mode). FIG. 21A shows an electromagnetic field distribution in an XY section orthogonal to the waveguide axial direction Z, and FIG. 21B shows an electromagnetic field distribution in a YZ section of a side face. As shown in the diagrams FIG. 21A and FIG. 21B, a state in which magnetic field components exist only in the section direction and no magnetic field components exist in the electromagnetic wave travel direction Z is called the "TM mode".

Please replace the paragraph beginning on page 3, line 2, with the following rewritten paragraph:

FIGS. 23A and 23B show electromagnetic field distributions in the TEM mode in the microstrip line and the coaxial line, respectively. A state in which, as shown in the diagrams FIG. 23A and FIG. 23B, both of the electric field components and the magnetic field components exist only in sections and do not exist in the electromagnetic wave travel direction Z is called a "TEM mode".

Please replace the paragraph beginning on page 10, line 3, with the following rewritten paragraph:

FIGS. 4A to 4C, 4A, 4B and 4C are diagrams each illustrating a magnetic field coupling portion in the RF module shown in FIG. 1.

Please replace the paragraph beginning on page 11, line 20, with the following rewritten paragraph:

FIGS. 25A, 25B to 25C, 25A, 25B and 25C are diagrams each showing an electric field distribution in the connecting structure illustrated in FIG. 24.

Please replace the paragraph beginning on page 14, line 2, with the following rewritten paragraph:

Each of FIGS. 4A to 4C ~~4A, 4B and 4C~~ shows a magnetic field distribution in the XY section of the connection portion between the microstrip line 10 and the waveguide 20 and its peripheral portion. Since the mode is the TEM mode, for example, as shown in FIG. 4A, a magnetic field H1 of the microstrip line 10 near the connection portion is distributed in a ring-shape around the line pattern 13 ~~circularly~~. On the other hand, for example, in a TE mode of the lowest order (TE₁₀ mode), a magnetic field H2 of the waveguide 20 is distributed in one direction in the section as shown in FIG. 4B. Therefore, as shown in FIG. 4C, by matching the direction of the magnetic field H1 in the microstrip line 10 and that of the magnetic field H2 of the waveguide 20 in the E plane of the waveguide 20, the magnetic fields are coupled and conversion from the TEM mode to the TE mode is performed.

Please replace the paragraph beginning on page 21, line 21, with the following rewritten paragraph:

Therefore, in the second adjusting method shown in FIG. 6, the degree of coupling can be adjusted by the position where the through hole 37 for coupling adjustment is provided in consideration of the magnetic field strength distribution. Specifically, for example, by providing the through hole 37 for coupling adjustment in a place where the magnetic field strength is high (the center of each of the sides in the case of a polygon shape) on the waveguide 40 side, the degree of coupling can be increasedlowered. The more the number of through holes 37 for coupling adjustment is increased, the lower the degree of coupling becomes.